

Lattices and Filters

In order not to confuse poset/lattice operators with set-theoretic operators, I will denote partial order as \sqsubseteq and lattice operators as \sqcup , \sqcap , \bigsqcup , \bigsqcap .

For my notation to be consistent, I need to order filters *reverse* to set theoretic inclusion of filters. I will denote \mathfrak{F} the lattice of filters (on some set) including the improper filter ordered reverse to set-theoretic inclusion of filters:

$$A \sqsubseteq B \Leftrightarrow A \supseteq B.$$